

Door Closing Mechanisms

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DOOR CLOSING MECHANISMS SINGLE OR MULTI-DOOR ENCLOSURES

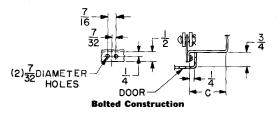
ENCLOSURE CONSTRUCTION DETAILS FOR 9423 M5 AND M6 KITS

Single and multi-door enclosures designed to accept the Class 9423 Types M5 and/or M6 kits must be constructed according to the dimensions shown in Figures 1-4. Imperative in the enclosure design is the door depth, which must be ¾" as shown in Figure 1, regardless of whether or not a disconnect device is used.

Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing oppositely of those shown.

Figure 1 — Flange Construction

- C Minimum = 134 with Class 9422 Type A1 handle mechanism on enclosure flange.
- C = 3 with Class 9422 Type A5 or A7 handle on enclosure flange.
- C Minimum = 11/16 without Class 9422 Type A1 handle mechanism on enclosure flance.



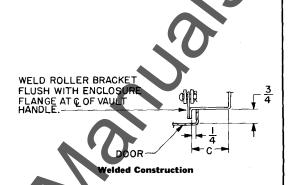


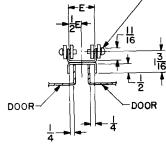
Figure 2 — Channel Construction

The channel construction details shown are used when two doors close on a common channel. Dimensions apply when a Type M6 kit is used on each door regardless of whether or not a Class 9423 Type M2 auxiliary door interlock is used.

E Min = 2 with Class 9423 Type M-2 interlock.

E Min = 1% without Class 9423 Type M-2 interlock.

(1) A DRILL IN EACH LEG OF INSIDE DOOR CHANNEL AT & OF VAULT HANDLE APPLICABLE TO FIGURES 2 & 4:7

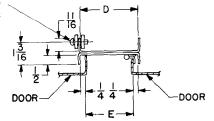


(1) ¼ Drill in Leg of Inside Door Channel at & of Vault Handle.

Figure 3 — Channel Construction

Details shown apply when one door closes on and one door is hinged on a common channel.

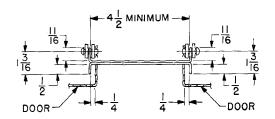
- D Minimum = 21/4) Without Class 9422 A1 in channel and with or without Class E Minimum = 11/4) 9423 M2 in channel.
- D Minimum = 314\ With Class 9422 A\ in channel and with or without Class E Minimum = 214\ 9423 M5 in channel



For Two Doors One Closing On and One Hinged on A Common Channel.

Figure 4 -- Channel Construction

The channel construction details shown apply when two doors close on a common channel. Dimensions apply when Class 9422 A1, Class 9423 M5, Class 9423 M2 are all located in the channel.



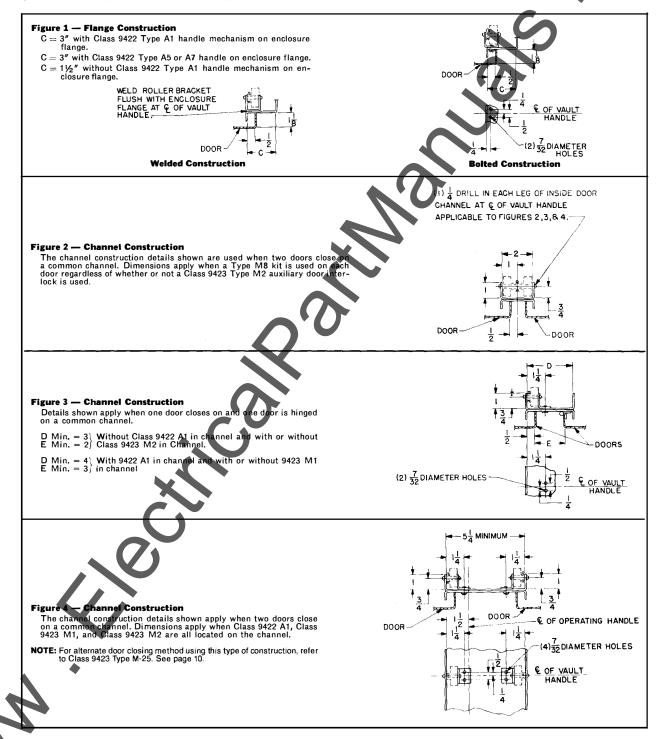
DOOR CLOSING MECHANISMS VAULT TYPE FOR SINGLE AND MULTI-DOOR ENCLOSURES



ENCLOSURE CONSTRUCTION DETAILS FOR 9423 M1 AND M8 KITS

Single and multi-door enclosures, designed to accept the Class 9423 Types M1 and/or M8 kits must be constructed according to the dimensions shown in Figures 1-4. Imperative in the enclosure design is the door depth, which must be 11/8" as shown in Figure 1, regardless of whether or not a disconnect device is used.

Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing oppositely of those shown.



DOOR CLOSING MECHANISMS VAULT TYPE FOR DOUBLE DOOR ENCLOSURES

APRIL, 1983

FOR DOUBLE DOOR ENCLOSURES WITH BOTH DOORS CLOSING ON A CENTER CHANNEL USING THE TYPE M1 AND M8 DOOR CLOSING MECHANISMS

Description	Туре	Price
The Class 9423 Type M25 Double Door Interlock Kit is designed for use on enclosures with two doors closing on a center channel which has a Class 9422 disconnect device mounted on it. The kit provides for the interlocking of both doors to the disconnect handle with one Class 9423 Type M1 kit. It also prevents the auxiliary door from being opened before the master door is opened, and without the use of a screwdriver to void a mechanical interlock. As you look at the enclosure, the left-hand door is the master door and the right-hand door the auxiliary door	M25	\$36.

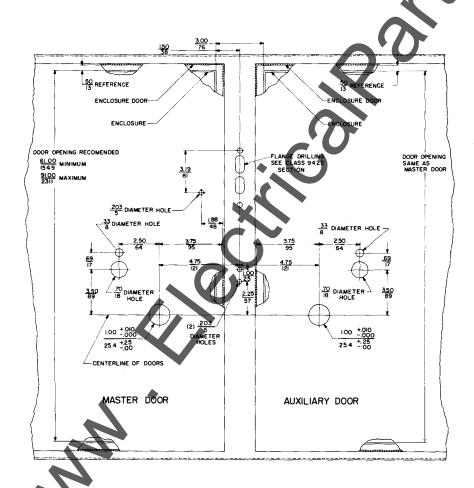
INSTALLATION

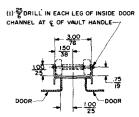
A complete installation requires the following items:

2 — Class 9423 Type M8 vault handles

- 1 Class 9423 Type M25 Double Door Interlock Kit
- 2 Lock bar kits (sized according to door opening, see page 6)
- 1 Class 9422 Handle Mechanism
- 1 Class 9423 Type M1 Mechanical Interlock Kit
- 1 Class 9422 Disconnect Device

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION





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SQUARE D COMPANY

3/83 Printed in U.S.A.



CLASS 9423
PAGE 1
JUNE, 1969

DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

FOR USE ON SINGLE OR MULTI-DOOR ENCLOSURES 91" HIGH MAXIMUM DOOR OPENING

GENERAL

The Class 9423 line of door closing mechanisms covers a wide range of enclosures with up to 91 inch high maximum door openings. The door closing mechanisms are designed primarily to be used on control enclosures and interlocked with a Class 9422 disconnect device, although they all can be used independently. Three different systems are available and their use is as recommended below. A complete system is available for interlocking all the doors of a multi-door enclosure with the master door when using the 6" or 8" Vault Handle Mechanism. See pages 7 and 8 for details on the necessary kits required for multi-door interlocking.

DEFINITIONS

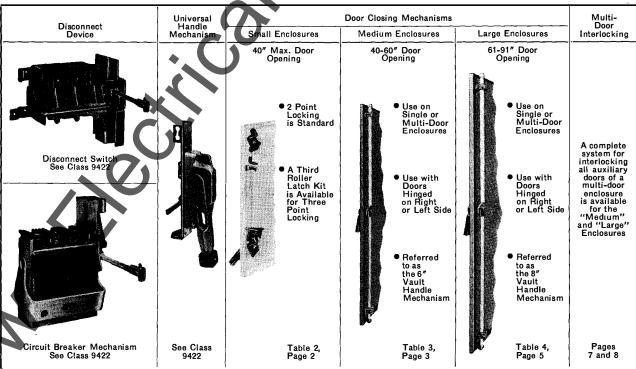
Master Door — The door of a single or multi-door enclosure which is interlocked directly with the disconnect device. The master door can be hinged on either the right or left hand side. It can be located in any position on a multi door enclosure.

Auxiliary Door(s) — The remaining door(s) of a multi-door enclosure which is (are) interlocked with the master door by means of the overhead interlocking system as outlined on pages 7 and 8.

SELECTION AND INSTALLATION PROCEDURE

- Step 1. Determine enclosure construction number of doors, door height, hinge location, etc.
- Step 2. Determine Class 9422 disconnect device to be used.
- Step 3. Determine location of disconnect device and universal handle mechanism (right or left hand flange or center channel.)
- Step 4. Select door closing mechanism required.
- Step 5. Select auxiliary door closing mechanisms and multi-door interlocking hardware, if required.

TABLE 1-SELECTION GUIDE



Step 6. Follow enclosure construction details given in each section to insure proper installation and positive oiltight seal.





(Minor Revision - 11/69)

DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

FOR SINGLE DOOR ENCLOSURES — NEMA 4 OR 12 WITH 40" HIGH MAXIMUM DOOR OPENING

DESCRIPTION

The Class 9423 door closing mechanisms listed in table 2 are designed for use on small single door control enclosures. They are primarily designed to be used in conjunction with Class 9422 flange mounted disconnect switches and circuit breaker operating mechanisms. They can be used independently as well.

The Types M3, M4 and M4L, when used on properly designed and gasketed NEMA 12 Industrial Use enclosures will meet JIC standards.

INSTALLATION

Enclosure Construction and General Location information is shown below. More detailed mounting information is given in the following instruction sheets provided with the kits.

Kit Type

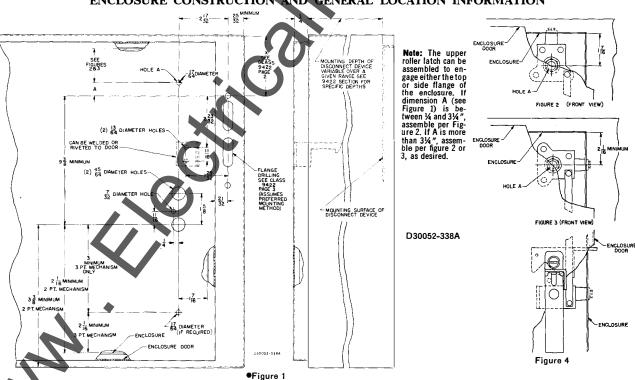
Type M3, M4, M23, M24 Type M3, M4L, M23, M24L Instruction Sheet

30072-303-30 30072-304-25

TABLE 2

8	Description	Use On (Enclosure Type)	Use In Conjunction With	Туре	Price
Z	Two Point Door Closing Mechanism for Use on En- closures with DOORS HINGED ON LEFT HAND	NEMA 4 and 12 Sheet Steel	Class 9422 Type A1	M4	\$16,00
1	SIDE	NEMA 4 and 12 Stainless Steel	Class 9422 Type A2	M24	21.00
\$ 1	Two Point Door Closing Mechanism for use on Enclosures with DOORS HINGED ON RIGHT HAND	NEMA 4 and 12 Sheet Steel	Class 9422 Type A1	M4L	16.00
TO ALL	SIDE	NEMA 4 and 12 Stainless Steel	Class 9422 Type A2	M24L	21.00
10 11	Third Roller Latch Kit for Three Point Locking. Used where 3 Point Locking is Desired or Where Door Open	NEMA 4 and 12 Sheet Steel	Class 9423 Types M4, M4L	М3	3.50
Class 9423 Type M4	ing May Slightly Exceed 40"	NEMA 4 and 12 Stainless Steel	Class 9423 Types M24, M24L	M23	4.00

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION



Note: Dimensions shown are for use on Enclosures with doors hinged on left side. Transpose all horizontal dimensions for doors hinged on right side.

ORDERING INFORMATION REQUIRED — Class and type number

SQUARE D COMPANY

All dimensions are in inches.



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DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

FOR SINGLE OR MULTI-DOOR ENCLOSURES — NEMA 12 WITH 40" TO 60" HIGH DOOR OPENING

DESCRIPTION

The Class 9423 Type M6 vault handle door closing mechanism is designed to be used to close and seal enclosure doors of single and multi-door NEMA 12 enclosures. The mechanism can be used on doors hinged on either the right or left hand side. Recommended door openings are from 40" to 60" although under some conditions the Type M6 mechanism can be used on door openings less than 40". Consult factory for details. For enclosures with door openings more than 60" use the Class 9423 Type M8 kit listed on page 5.

The Class 9423 Type M5 mechanical interlock kit is designed to interlock the Class 9422 disconnect device with the Type M6

mechanism. Its use prevents opening the enclosure door with the disconnect in the "ON" position, and makes it mandatory to use a screw driver to gain entry to the enclosure at all times, regardless of disconnect position.

INSTALLATION

General Enclosure Construction and drilling information is shown below, and on page 4. More detailed installation instructions are given on the following instruction sheets provided with the kits:

Kit Type Type M5 Type M6 Installation Sheet

30072-303-28 30072-303-29



Description	Туре	Price
6" vault handle door closing mechanism (locking bars not included)	M6	\$18.
Mechanical interlock kit for interlocking the Type M6 kit with the Class 9422 Type A1 universal handle mechanism.	M5	15.
Locking bar selection (2 required per door)		2.50 ea.

Door Opening (In)	Part Number	Door Opening (In)	Part Number	Door Opening (In)	Part Number
40	1975-D14-X4	47	1975-D7-X18	54	*1975-C3-G7
41	1975-D7-X7	48	*1975-C3-G1	55	1975-C3-G8
42	*1975-D7-X20	49	1975-C3-G2	56	1975-C3-G9
43	1975-D7-X16	50	1975-C3-G3	57	1975-C3-G10
44	1975-D14-X6	51	1975-C3-G4	58	1975-C3-G11
45	1975-D7-X8	52	1975-C3-G5	59	1975-C3-G12
46	1975-D14-X15	53	1975-C3-G6	60	*1975-C3-G13

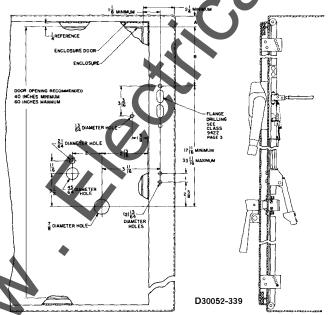
Single door enclosures require 1-9423 M6, 1-9423 M5 (if interlocking with universal handle is required), and locking bars. Multi-Door enclosures require 1-9423 M6 per door, 1-9423 M5 for master door, and locking bars. Select interlocking hardware from pages 7 and 8.

*Stock (locking bars can be cut to accommodate other door openings, if desired).

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION

Drilling and location information below is complete for a single door enclosure with door hinged on left side, incorporating a Type M6, M5, and Class 9422 Type A1 universal handle mech-

anism. Transpose all horizontal dimensions for doors hinged on right side. See page 4 for information on flange and channel construction.



Dimension A

Single door enclosures: A minimum = 1"

Multi-Door enclosures without overhead interlocking system: A minimum = 1''

Multi-Door enclosures with overhead interlocking system: A minimum = 4½".

Note: Overhead interlocking system consists of the required number of Class 9423 Type M2 and M7 kits for interlocking the auxiliary doors with the master door. See pages 7 and 8.

Dimension B (Minimums)

Disconnect Device	lf A = 1 B Min.	If A = 4½ B Min.
30 Amp. Sw.	21/16	2
60 Amp. Sw.	3	2
100 Amp. Sw.	31/2	2
200 Amp. Sw.	6	21/2
FA CKT BKR	211/16	2
KA CKT BKR	37/16	2
LA CKT BKR	8%	47/8
MA CKT BKR	102%2	713/32

ORDERING INFORMATION REQUIRED

3—Select multi-door interlocking hardware (if required) from pages 7 and 8.

All dimensions are in inches.

-Class and type number.

2—Locking bar part number.

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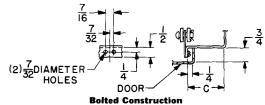
DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

Single and multi-door enclosures designed to accept the Class 9423 Types M5 and/or M6 kits must be constructed according to the dimensions shown in figures 1-4. Imperative in the enclosure design is the door depth, which must be 3/4" as shown in figure 1, regardless of whether or not a disconnect device

Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing oppositely of those shown. The instruction sheets listed on page 3 give more detailed information on enclosure construction.

Figure 1 - Flange Construction

- C Minimum = 1¾ with Class 9422 Type A1 universal handle on enclosure flange.
- C Minimum = 11/16 without Class 9422 Type A1 universal handle on en-



WELD ROLLER BRACKET FLUSH WITH ENCLOSURE FLANGE AT & OF VAULT HANDLE.

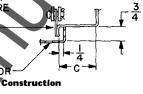


Figure 2 - Channel Construction

The channel construction details shown are used when two doors close mon channel. Dimensions apply when a type M6 kit is used on each door of whether or not a Class 9423 Type M2 auxiliary door interlock is used.

DRILL IN EACH LEG OF INSIDE DOOR CHANNEL AT & OF VAULT HANDLE APPLICABLE TO FIGURES 2 & 4.7

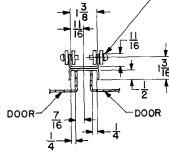


Figure 3 — Channel Construction

es on and one door is hinged on a common Details shown apply when one door cld

- D Minimum = $2\frac{1}{4}$ Without Cla E Minimum = $1\frac{1}{4}$ 9423 M2 in A1 in channel and with or without Class
- in channel and with or without Class

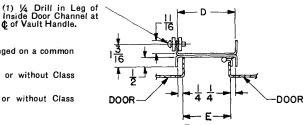
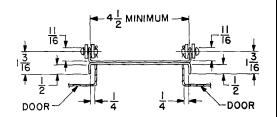


Figure 3
For Two Doors One Closing On and One Hinged on A Common Channel.

Figure 4 — Channel Construction

The channel construction details shown apply when two doors close on a common channel. Dimensions apply when Class 9422 A1, Class 9423 M5, Class 9423 M2 are all located in the channel.





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DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

FOR SINGLE OR MULTI-DOOR ENCLOSURES - NEMA 12 WITH 61" TO 91" HIGH DOOR OPENING

DESCRIPTION

The Class 9423 Type M8 Vault Handle Door Closing Mechanism is designed to be used to close and seal enclosure doors of large floor mounted, single and multi-door NEMA 12 enclosures. The mechanism can be used on doors hinged on either the right or left hand side. Recommended door openings are from 61" to 91" although under some conditions the Type M8 Mechanism can be used on door openings less than 60". Consult factory for details. (Normally, the Class 9423 Type M6 Mechanism listed on page 3 would be used on enclosures with door openings of 60" or less.)

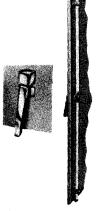
The Class 9423 Type M1 Mechanical interlock kit is designed to interlock the Class 9422 disconnect device with the Type M8

mechanism. Its use prevents opening the enclosure door with the disconnect in the "ON" position, and makes a mandatory to use a screw driver to gain entry to the enclosure at all times, regardless of disconnect position.

INSTALLATION

General Enclosure Construction and drilling information is shown below, and on page 6. More detailed installation instructions are given on the following instruction sheets provided with the kits:

Kit Type	Instruction Sheet
Type M1	30072-304-12
Type M8	30072-304-13



Class 9423 Type M8 With Locking Bars

TABLE 4

Description	Туре	Price
8" vault handle door closing mechanism (locking bars not included) \ldots	M8	\$35,00
Mechanical interlock kit for interlocking the Type M8 kit with the Class 9422 Type A1 universal handle mechanism.	M1	30.00
Locking bar selection (2 required per door)		2.50 ea.

Door Opening (1n)	Part Number	Door Opening (In)	Part Number	Door Opening (In)	Part Number
61	1975-C4-G12	73	1975-C4-G24	83	3014-F75-G7
63	1975-C4-G14	75	1975-C4-G26	85	1975-C4-G33
65	1975-C4-G16	77	1975-C4-G28	87	1975-C4-G34
67	1975-C4-G17	79	1975-C4-G30	89	3014-F75-G4
69	1975-C4-G19	81	1975-C4-G31	91	3014-F75-G6
71	1975-C4-G20			(

Single door enclosures require 1-9423 M8, 1-9423 M1 (if interlocking with universal handle is required) and locking bars.

Multi-Door enclosures require 1-9423 M8 per door, 1-9423 M1 for master door, and locking bars. Select interlocking hardware from pages 7 and 8.

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION

Drilling and location information below is complete for a single door enclosure with door hinged on left side, incorporating a Type M8, M1, and Class 9422 Type A1 universal handle mecha-

nism. Transpose all horizontal dimensions for doors hinged on right side. See page 6 for information on flange and channel construction.

Dimension A

Single door enclosures: A minimum = 11/2

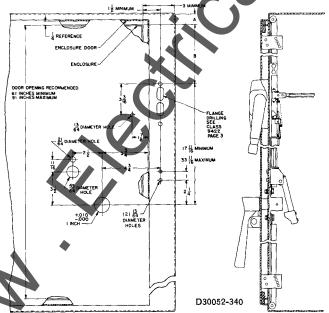
Multi-Door enclosures without overhead interlocking system: A minimum = $1\frac{1}{2}$

Multi-Door enclosures with overhead interlocking system: A minimum = $4\frac{1}{2}$

Note: Overhead interlocking system consists of the required number of Class 9423 Type M2 and M7 kits for interlocking the auxiliary doors with the master door. See pages 7 and 8.

Dimension B (Minimum)

Disconnect Device		If A = 1½ B Min.	If A = 4½ B Min.
30 Amp. S	w.	21/2	21/2
60 Amp. S	w.	2½	21/2
100 Amp. S	Sw.	3	21/2
200 Amp. S	w.	5½	21/2
FA CKT	BKR	21/2	21/2
KA CKT	BKR	3	21/2
LA CKT	BKR	71/8	47/8
MA CKT	BKR	1013/32	713/32



ORDERING INFORMATION REQUIRED

1—Class and type number. 2—Locking bar part number. 3—Select multi-door interlocking hardware (if required) from pages 7 and 8.

All dimensions are in inches.





DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

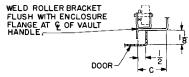
ENCLOSURE CONSTRUCTION DETAILS FOR 9423 M8 AND M1 KITS

Single and multi-door enclosures designed to accept the Class 9423 Types M1 and/or M8 kits must be constructed according to the dimensions shown in figures 1-4. Imperative in the enclosure design is the door depth, which must be 11/8" as shown in figure 1, regardless of whether or not a disconnect device

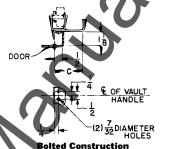
Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing oppositely of those shown. The instruction sheets listed on page 5 give more detailed information on enclosure construction.

Figure 1 - Flange Construction

- C=3'' with Class 9422 Type A1 universal handle on enclosure flange. $C=1\frac{1}{2}$ without Class 9422 Type A1 universal handle on en-
- closure flange.



Welded Construction



1) A DRILL IN EACH LEG OF INSIDE DOOR

Figure 2 — Channel Construction

The channel construction details shown are used when two doors close on a common channel. Dimensions apply when a Type M8 kit is used on each door regardless of whether or not a Class 9423 Type M2 auxiliary door interlock is used.

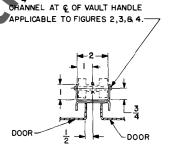


Figure 3 — Channel Construction

Details shown apply when one door closes on and one door is hinged on a common channel.

- D Min. = 3) Without Class 9422 A1 in channel and E Min. = 2) Class 9423 M2 in Channel.
- D Min. = 4) With 9422 A1 in channel E Min. = 3) in channel and with or without 9423 M1

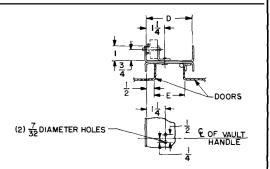
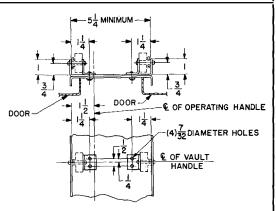


Figure 4 — Channel Construction

The channel construction details shown apply when two doors close on a common channel. Dimensions apply when Class 9422 A1, Class 9423 M1, and Class 9423 M2 are all located in the channel.





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DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

OVERHEAD INTERLOCKING HARDWARE FOR MULTI-DOOR ENCLOSURES

On multi-door enclosures, it is oftentimes desirable or necessary to interlock the auxiliary doors with the master door which in turn is interlocked with a disconnect device.

The two kits listed below provide a complete interlocking

system. These kits are used in conjunction with the Class 9423 Type M6 or M8 Vault Handle Mechanisms. The example component selection problem below and the selection guide on page 8 are set up to aid in the selection and location of the interlocking kits.

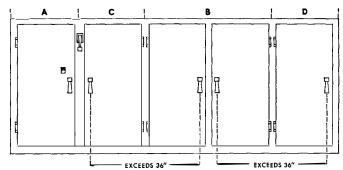
	Туре	Price
Overhead Interlocking Raising Lever Assembly Outlief with the Master door to interlock the master door with the auxiliary door(s) of a multi-door enclosure. In this application the Type M7 kit is actuated from the upper locking bar on the master door. A 1/4" diameter rod (furnished by customer) connects to this Type M7 kit and runs horizontally across the top of the enclosure and ties into the other Type M7 kit(s). Outlief to connect the overhead interlocking rod of any auxiliary door with the master door. Outlief to control the action of the Type M2 mechanical interlock used on auxiliary doors.	M7	\$ 5,00
Mechanical Interlock for Auxiliary Doors Used to interlock either the Type M6 or M8 vault handle mechanisms on auxiliary doors of multi-door enclosures with the master door. The M2 kit is used in conjunction with the Type M7 raising lever assembly.	M2	18.00

INSTALLATION

Detailed location information for the Type M2 and M7 kits is given on instruction sheet 30072-304-26 furnished with each kit.

EXAMPLE COMPONENT SELECTION

Given: The 5 door enclos fusible disconnect; 34" wi 73" door opening; 60 Amp. non-1. Disconnect Switch 1-9422RD-1 2. Universal Handle 1-9422A-1 3. Door Closing 5-9423M8 10-1975-C4-G24 4. Locking Bars (2 per door) 5. Mechanical Interlock (master door) 1-9423-M1 Auxiliary Handware (divide enclosure into sections as shown above (A, B, C, D) or on Page 8. Master Door 1-9423M7 Poors Closing on Same Channel 1-9423M2 2-9423M7 One Door Hinged on Right 1-9423M2 D. One Door Hined on Left 1-9423M2 1-9423M7 E. 2 Spans Between Raising Levers Exceeding 36" 2-9423M7



ORDERING INFORMATION REQUIRED

Class and type number

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DOOR CLOSING MECHANISMS AND AUXILIARY ENCLOSURE HARDWARE

FOR SINGLE OR MULTI-DOOR NEMA 12 ENCLOSURES

MULTI-DOOR ENCLOSURE INTERLOCKING HARDWARE — SELECTION GUIDE

All mu	ofti-door enclosures are combinations of the door configurations shown below. Divide enclosure	accordingly and ord	der required har	dware.
			Kits Re	
	DOOR CONFIGURATION	Location	Quantity	Туре
Α	The Disconnect	Hinged on Left of Right — Closing on Flance or Center Channel	1	M7
В	Each Set of 2 Doors (Not including Master Door) Closing on Same Vertical channel	Any	1 Per Set 2 Per Set	M2 M7
С	on Right Hand Side	Closing on Either the Flange or a Center Channel	1 1	M2 M7
D	Door Hinged on Left Hand Side	Closing on Either the Flange or a Center Channel	1 1	M2 M7
E	If any vault handle door closing mechanisms are more than 36" at additional M7 kit is required for support of the overhead interlocking	part an ng bar.	1 Per Span Over 36"	M7

DOOR CLOSING MECHANISMS AND ENCLOSURE ACCESSORIES

9423

FOR USE ON SINGLE OR MULTI-DOOR ENCLOSURES 91" HIGH MAXIMUM DOOR OPENING

The Class 9423 line of door closing mechanisms covers a wide range of enclosures with up to 91 inch high maximum door openings. The door closing mechanisms are designed primarily to be used on control enclosures and interlocked with a Class 9422 disconnect device, although they all can be used independently. Three different systems are available and their use is as recommended below. A complete system is available for interlocking all the doors of a multi-door enclosure with the master door when using a 6" or 8" Vault Handle Mechanism.

DEFINITIONS

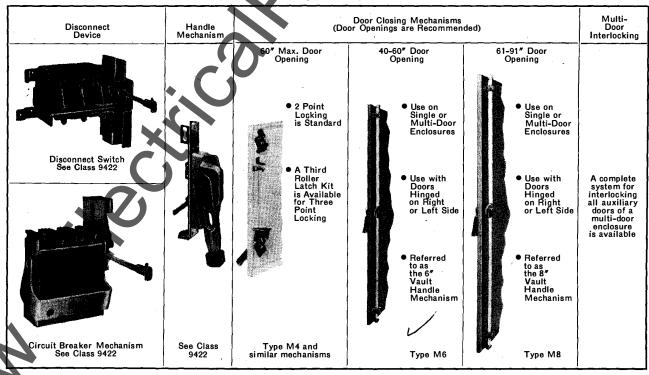
Master Door — The door of a single or multi-door enclosure which is interlocked directly with the disconnect device. The master door can be hinged on either the right or left hand side. It can be located in any position on a multi door enclosure.

Auxiliary Door(s) The remaining door(s) of a multidoor enclosure which is (are) interlocked with the master door.

SELECTION AND INSTALLATION PROCEDURE

- Step 1. Determine enclosure construction number of doors, door height, hinge location, etc.
- Step 2. Determine Class 9422 disconnect device to be used.
- Step 3. Determine location of disconnect device and handle mechanism (right or left hand flange or center channel).
- **Step 4.** Select door closing mechanism required.
- Step 5. Select auxiliary door closing mechanisms and multi-door interlocking hardware, if required.

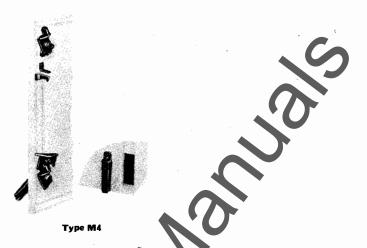
TABLE 1-SELECTION GUIDE



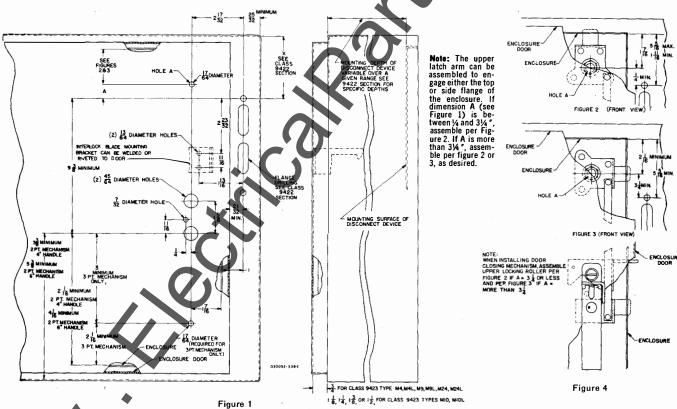
Step 6. Follow enclosure construction details given in each section to insure proper installation and positive dust tight seal.

DOOR CLOSING MECHANISMS FOR SINGLE DOOR ENCLOSURES





ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION



Note: Dimensions shown are for use on Enclosures with doors hinged on left side. Transpose all horizontal dimensions for doors hinged on right side.

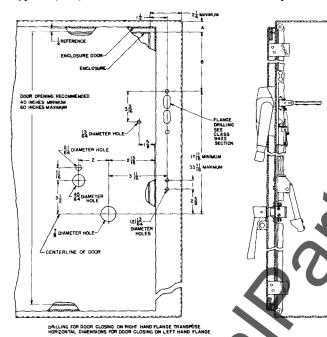
DOOR CLOSING MECHANISMS **VAULT TYPE FOR SINGLE AND MULTI-DOOR ENCLOSURES**

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION

FOR TYPES M5 AND M6

Drilling and location information below is complete for a single door enclosure with door hinged on left side, incorporating a Type M6, M5, and Class 9422 handle mechanism. Transpose all

horizontal dimensions for doors ninged on right side. See page 9423-4 for information on flange and channel construction.



Dimension A

Single door enclosures:

Multi-Door enclosures with out overhead interlocking system: A mini-

Multi-Door enclosures with overhead interlocking system: A minimum = 4½",

Note: Overhead, interlocking system consists of the required number of Class 9423 Type M2 and M7 kits for interlocking the auxiliary doors with the master door. See pages 551 and 552.

Dimension B (Minimums)

	1	Disconne Device		If A = 1 B Min.	If A = 4½ B Min.
	a	0 Amp.	Sw.	21/16	2
	60	Amp. S	Sw.	3	2
Г	10	0 Amp.	Sw.	31/2	2
	20	0 Amp. S	Sw.	6	21/2
	40	0 Amp.	Sw.	121/4	83/4
	FA	CKT	BKR	211/16	2
1	KA	СКТ	BKR	37/16	2
	LA	CKT	BKR	8%	47/8
	МА	CKT	BKR	1 029/32	713/32

FOR TYPES M1 AND M8

Drilling and location information below is complete for a single door enclosure with door hinged on left side incorporating a Type M8, M1, and Class 9422 handle mechanism. Transpose all

horizontal dimensions for doors hinged on right side. See page 9423-5 for information on flange and channel construction.

Dimension A

Single door enclosures: A minimum = $1\frac{1}{2}$

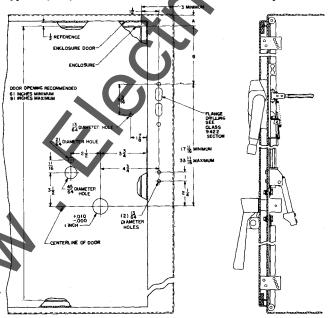
Multi-Door enclosures without overhead interlocking system: A minimum = $1\frac{1}{2}$

Multi-Door mum = 41/2 enclosures with overhead interlocking system: A mini-

Note: Overhead interlocking system consists of the required number of Class 9423 Type M2 and M7 kits for interlocking the auxiliary doors with the master door. See pages 551 and 552.

Dimension R (Minimum)

Difficultion B (Millimin	<u>''', </u>	
Disconnect Device	If A = 1½ B Min.	If A = 4½ B Min.
30 Amp. Sw.	21/2	21/2
60 Amp. Sw.	21/2	21/2
100 Amp. Sw.	3	21/2
200 Amp. Sw.	5½	21/2
400 Amp. Sw.	113/4	· 8¾
FA CKT BKR	21/2	21/2
KA CKT BKR	3	21/2
LA CKT BKR	77/8	47/8
MA CKT BKR	1013/32	713/32



DRILLING FOR DOOR CLOSING ON RIGHT HAND FLANGE TRANSPOSE HORIZONTAL DIMENSIONS FOR DOOR CLOSING ON LEFT HAND FLANGE

DOOR CLOSING MECHANISMS

VAULT TYPE FOR SINGLE AND MULTI-DOOR ENCLOSURES



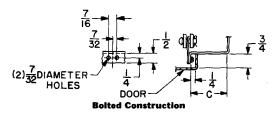
ENCLOSURE CONSTRUCTION DETAILS FOR 9423 M5 AND M6 KITS

Single and multi-door enclosures designed to accept the Class 9423 Types M5 and/or M6 kits must be constructed according to the dimensions shown in Figures 1-4. Imperative in the enclosure design is the door depth, which must be ¾" as shown in Figure 1, regardless of whether or not a disconnect device is used.

Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing oppositely of those shown.

Figure 1 — Flange Construction

- C Minimum = 13/4 with Class 9422 Type A1 handle mechanism on enclosure flange.
- C = 3 with Class 9422 Type A5 or A7 handle on enclosure flange.
- C Minimum = $1\frac{1}{16}$ without Class 9422 Type A1 handle mechanism on enclosure flange.



WELD ROLLER BRACKET
FLUSH WITH ENGLOSURE
FLANGE AT © OF VAULT
HANDLE.

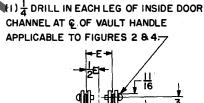
DOOR
Welded Construction

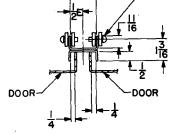
Figure 2 — Channel Construction

The channel construction details shown are used when two doors close on a common channel. Dimensions apply when a Type M6 kit is used on each door regardless of whether or not a Class 9423 Type M2 auxiliary door interlock is used.

E Min = 2 with Class 9423 Type M-2 interlock.

E Min = 1% without Class 9423 Type M-2 interlock.



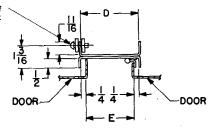


(1) ¼ Drill in Leg of Inside Door Channel at t of Vault Handle.

Figure 3 — Channel Construction

Details shown apply when one door closes on and one door is hinged on a common channel.

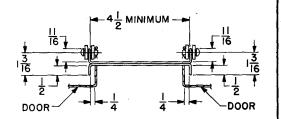
- D Minimum = 21/4 \setminus Without Class 3422 A1 in channel and with or without Class E Minimum = 11/4 \mid 9423 M2 in channel.
- D Minimum = $3\frac{1}{4}$ With Class 9422 A1 in channel and with or without Class E Minimum = $2\frac{1}{4}$ 9423 M5 in channel.



For Two Doors One Closing On and One Hinged on A Common Channel.

Figure 4 - Channel Construction

The channel construction details shown apply when two doors close on a common channel. Dimensions apply when Class 9422 A1, Class 9423 M5, Class 9423 M2 are all located in the channel.



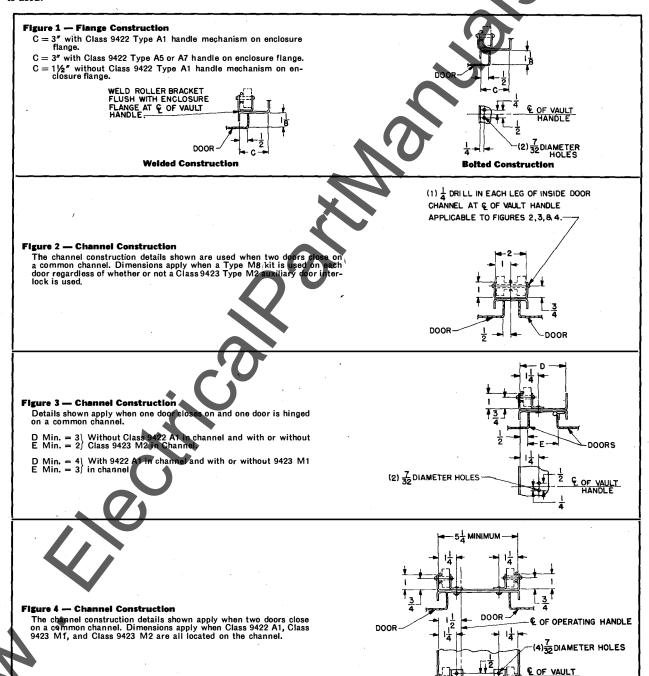
DOOR CLOSING MECHANISMS VAULT TYPE FOR SINGLE AND MULTI-DOOR ENCLOSURES

9423

ENCLOSURE CONSTRUCTION DETAILS FOR 9423 M8 AND M1 KITS

Single and multi-door enclosures designed to accept the Class 9423 Types M1 and/or M8 kits must be constructed according to the dimensions shown in Figures 1-4. Imperative in the enclosure design is the door depth, which must be 1½" as shown in Figure 1, regardless of whether or not a disconnect device is used.

Figures 1-4 are top views of the flange or center channels with various door configurations. Simply transpose all dimensions for enclosures with doors closing appositely of those shown.



DOOR CLOSING MECHANISMS VAULT TYPE FOR DOUBLE DOOR ENCLOSURES



FOR DOUBLE DOOR ENCLOSURES WITH BOTH DOORS CLOSING ON A CENTER CHANNEL

Description	Туре	Price
The Class 9423 Type M25 Double Door Interlock Kit is designed for use on enclosures with two doors closing on a center channel which has a Class 9422 disconnect device mounted on it. The kit provides for the interlocking of both doors to the disconnect handle with one Class 9423 Type M1 kit. It also prevents the auxiliary door from being opened before the master door is opened, and without the use of a screwdriver to void a mechanical interlock. As you look at the enclosure, the left-hand door is the master door and the right-hand door the auxiliary door	M25	\$18.

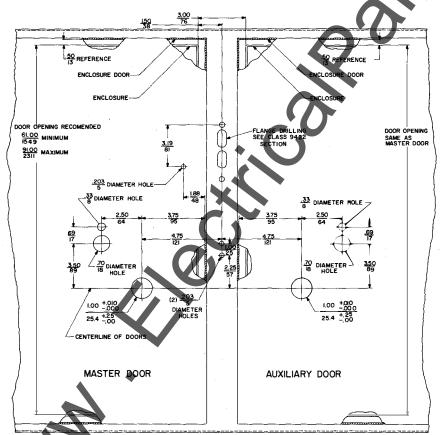
INSTALLATION

A complete installation requires the following items:

2 — Class 9423 Type M8 vault handles

- 1 Class 9423 Type M25 Double Door Interlock Kit
- 4 Locking bars (sized according to door opening)
- 1 Class 9422 Handle Mechanism
- 1 Class 9423 Type M1 Mechanical Interlock Kit
- 1 Class 9422 Disconnect Device

ENCLOSURE CONSTRUCTION AND GENERAL LOCATION INFORMATION



(1)-25 DRILL IN EACH LEG OF INSIDE DOOR
CHANNEL AT & OF VAULT HANDLE

15076
15076
15076
15076
15076
15076
15076

D 30053-214

DOOR CLOSING MECHANISMS VAULT TYPE FOR SINGLE AND MULTI-DOOR ENCLOSURES

EXAMPLE COMPONENT SELECTION

9423

EXCEEDS 36"

Given: The 5 door enclosure shown; 73" door opening fusible disconnect; 34" wide doors.	ng; 60 Amp. non-
1. Disconnect Switch	1-9422RD-1
2. Handle Mechanism	1-9422A-1
3. Door Closing Mechanism	5-9423M8
4. Locking Bars (2 per door)	10-1975-C4-G24
5. Mechanical Interlock (master door)	1-9423-M1
 Auxiliary Hardware — divide enclosure into section the right (A, B, C, D) or as shown below. 	ons as shown to
A. Master Door	1-9423M7
B. 2 Doors Closing on Same Channel	1-9423M2 1-9423M7
C. One Door Hinged on Right	1-9423M2 1-9423M7
D. One Door Hinged on Left	1-9423M2 1-9423M7
E. 2 Spans Between Raising Levers Exceeding 36"	2-9423M7

	MULTI-DOOR ENCLOSURE INTERLOCKING HARDWARE			
All	nulti-door enclosures are combinations of the door configurations shown below. Divide enclosi	ore accordingly and ord		
ì	DOOD CONFIGURATION	Location	Quantity	equired
Α	The Master Door — Door Interlocked Directly With The Disconnect Device	Hinged on Left or Right — Closing on Flange or Center Channel	Quantity	M7
В	Each Set of 2 Doors (Not including Master Door) Closing on Same Vertical channel	Any	1 Per Set 1 Per Set	M2 M7
С	Each Remaining Door Hinged on Right Hand Side	Closing on Either the Flange or a Center Channel	1 1	M2 M7
D	Each Remaining Door Hinged on Left Hand Side	Closing on Either the Flange or a Center Channel	1 1	M2 M7
E	If any vault handle door closing mechanisms are more than 36" additional M7 kit is required for support of the overhead interlock	apart an king bar.	1 Per Span Over 36"	М7

MANN CIRCLICAL SALMARINALS.

DOOR CLOSING MECHANISMS

Class 9423 door closing mechanisms are designed to be used to close and seal enclosure doors of single and multi-door enclosures. These mechanisms can be used on doors hinged on either the right or left hand side. The door openings listed are recommended.



	Description	Use On (Enclosure Type)	Use In Conjunction With	Operating Handle Length	Maximum Door Opening	Туре	Price
2			Class 9422 Type A1	4"	40"	M4	\$32.
19	Two Point Door Closing Mechanism for Use on En-	NEM A 4 and 12 Sheet Steel		4"	40″	M10*	44.
L.	closures with DOORS HINGED ON LEFT HAND SIDE			6"	60"	M9	34.
7		NEMA 4 and 12 Stainless Steel	Class 9422 Type A2	4"	40"	M24	42.
		NEMA 4 and 12 Sheet Steel		4"	40″	M4L	32.
	Two Point Door Closing Mechanism for use on Enclo- sures with DOORS HINGED ON RIGHT HAND SIDE			4"	40"	M10L*	44.
				6"	60"	M9L	34.
		NEMA 4 and 12 Stainless Steel	Class 9422 Type A2	4"	40″	M24L	42.
	Third Roller Latch Kit for Three Point Locking. Used where 3 Point Locking is De-	NEM A 4 and 12 Sheet Steel	Class 9423 Types M4, M4L, M9, M9L			М3	7.
Type M4	sired or Where Door Open- ing Exceeds 40"	NEMA 4 and 12 Stainless Steel	Class 9423 Types M24, M24L			M23	8.

SINGLE DOOR ENCLOSURES TO 60"

*Three point mechanism suitable for door depths of 11/2", 11/4", 13/8" and 11/3".

The Class 9423 Types M6 and M8 vault handle door closing mechanisms are designed to be used to close and seal enclosure doors of single and multi-door NEMA 12 enclosures. These mechanisms can be used on doors hinged on either the right or left hand side. Recommended door openings are from 40" to 60" and 61" to 91", respectively.

The Class 9423 Types M5 and M1 mechanical interlock kits are designed to interlock the Class 9422 disconnect device with the Types M6 and M8 mechanisms respectively. Their use prevents opening the enclosure door with the disconnect in the "ON" position, and makes it mandatory to use a screwdriver to gain entry to the enclosure at all times, regardless of disconnect position.

SINGLE OR MULTI-DOOR ENCLOSURES 40" TO 60"
--

Description	Туре	Price
6" vault handle door closing mechanism (locking bars not included)	M6	\$36.
Mechanical interlock kit for interlocking the Type M6 kit with the Class 9422 Type A1 handle mechanism	M5	30.

Locking bar selection (2 required per door). Single door enclosures require 1-9423 M6, 1-9423 M5 (if interlocking with handle mechanism is required), and locking bars, Multi-Door enclosures require 1-9423 M6 per door, 1-9423 M5 for master door, and locking bars...

Door Opening (In)	Part Number	Door Opening (In)	Part Number	Door Opening (In)	Part Number
40	1975-D14-X4	47	*1975-D7-X18	54	*1975-C3-G7
41	1975-D7-X7	48	*1975-C3-G1	55	*1975-C3-G8
42	*1975-D7-X20	49	1975-C3-G2	56	*1975-C3-G9
43	*1975-D7-X16	50	1975-C3-G3	57	*1975-C3-G10
44	1975-D14-X6	51	*1975-C3-G4	58	1975-C3-G11
45	*1975-D7-X8	52	*1975-C3-G5	59	1975-C3-G12
46	1975-D14-X15	53	1975-C3-G6	60	*1975-C3-G13

Single door enclosures require 1-9423 M6, 1-9423 M5 (if interlocking with handle mechanism is required), and locking bars. Multi-Door enclosures require 1-9423 M6 per door, 1-9423 M5 for master door, and locking bars. Select interlocking hardware from page 400.

Stock (locking bars can be cut to accommodate other door openings, if desired. Contact your local Square D Field Office for details).

SINGLE OR MULTI-DOOR ENCLOSURES 61" TO 91"

Description	Туре	Price
8" vault handle door closing mechanism (locking bars not included)	M8	\$70.
Mechanical interlock kit for interlocking the Type M8 kit with the Class 9422 Type A1 handle mechanism	M1	60.
Locking bar selection (2 required per door). Single door enclosures require 1	-9423 M8.	

1-9423 M1 (if interlocking with handle mechanism is required) and locking bars.

Multi-Door enclosures require 1-9423 M8 per door, 1-9423 M1 for master door, and locking Locking bars can be cut to accommodate other door openings, if desired.....

Door Opening (In)	Part Number	Door Opening (In)	Part Number	Door Opening (In)	Part Number
61	*1975-C4-G12	73	*1975-C4-G24	83	3014-F75-G7
63	*1975-C4-G14	75	*1975-C4-G26	85	*1975-C4-G33
65	*1975-C4-G16	77	*1975-C4-G28	87	1975-C4-G34
67	*1975-C4-G17	79	*1975-C4-G30	89	3014-F75-G4
69	*1975-C4-G19	81	*1975-C4-G31	91	3014-F75-G6
71	*1975-C4-G20				

Single door enclosures require 1-9423 M8, 1-9423 M1 (if interlocking with handle mechanism is required) and locking bars.

Multi-Door enclosures require 1-9423 M8 per door, 1-9423 M1 for master door, and locking bars. Select

interlocking hardware from page 400.

*Stock items (locking bars can be cut to accommodate other door openings, if desired. Contact your local Square D Field Office for details).



DOOR CLOSING MECHANISMS ACCESSORIES



INTERLOCKING HARDWARE FOR MULTI-DOOR ENCLOSURES

For Use With Types M6 and M8 Vault Handles

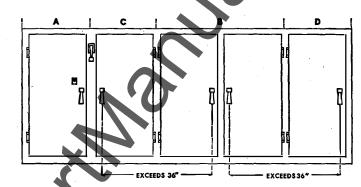
Overhead Interlocking Raising Lever Assembly Outside with the Master door to interlock the master door with the auxiliary door(s) of a multi-door enclosure. In this application the Type M7 kit is actuated from the upper locking bar on the master door. A ½ diameter rod (furnished by customer) connects to this Type M7 kit and runs horizontally across the top of the enclosure and ties into the other Type M7 kit(s). Outside to connect the overhead interlocking rod of any auxiliary door with the master door. Outside to control the action of the Type M2 mechanical interlock used on auxiliary doors. Mechanical Interlock for Auxiliary Doors Used to interlock either the Type M6 or M8 vault handle mechanisms on auxiliary doors of multi-door enclosures with the master door.		Туре	Price	1
•Used to control the action of the Type M2 mechanical interlock used on auxiliary doors. Mechanical Interlock for Auxiliary Doors	•Used with the Master door to interlock the master door with the auxiliary door(s) of a multi-door enclosure. In this application the Type M7 kit is actuated from the upper locking bar on the master door. A 1/4 diameter rod (furnished by cus-	M7	\$10.	J
Mechanical Interlock for Auxiliary Doors	•Used to connect the overhead interlocking rod of any auxiliary door with the master door.		\	
	•Used to control the action of the Type M2 mechanical interlock used on auxiliary doors.			
The M2 kit is used in conjunction with the Type M7 raising lever assembly.	Used to interlock either the Type M6 or M8 vault handle mechanisms on auxiliary doors of multi-door enclosures with the master door.	M²	36.	

EXAMPLE COMPONENT SELECTION

Given: The 5 door enclosure shown; 73" door opening; 60 Amp. non-fusible disconnect; 34" wide doors.

1.	Disconnect Switch	1-9422RD-1
2.	Handle Mechanism	1-9422A-1
з.	Door Closing Mechanism	5-9423M8
4.	Locking Bars (2 per door)	10-1975-C4-G24
5.	Mechanical Interlock (master door)	1-9423-M1
6.	Auxiliary Hardware (divide enclosure into (A, B, C, D) or on Page 552.	sections as shown above
	A. Master Door	1-9423M7
	B. 2 Doors Closing on Same Channel	1-9423M2

A.	Master Door	1-9423M7
В.	2 Doors Closing on Same Channel	1-9423M2 1-9423M7
c.	One Door Hinged on Right	1-9423M2 1-9423M7
D.	One Door Hinged on Left	1-9423M2 1-9423M7
E.	2 Spans Between Raising Levers Exceeding 36"	2-9423M7



AI ARC INHIBITOR

9600



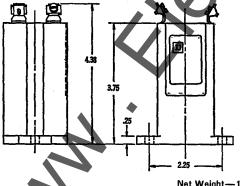
Class 9600 Type AI-1 Arc Inhibitor

Туре	Price
AI-1	\$28.

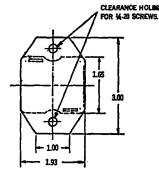
The Class 9600 Al-1 arc inhibitor is designed to reduce arcing of pilot devices in dc inductive control circuits of 250 VDC or less. The AI-1 arc inhibitor will limit the inductive voltage surge to a maximum of 600 volts when applied in accordance with the applica-

tion chart. When applying the arc inhibitor to a circuit, two factors must be considered the current drawn by the inductive load and the number of times per minute that the load will be interrupted. Once these two factors are determined the application is checked against the application chart. The chart shows the maximum interruptions per minute that the arc inhibitor can handle at a given current. As long as an application falls below the curve, the arc inhibitor handle the load. The arc inhibitor is connected in parallel with the inductive load and is in the circuit at all times.

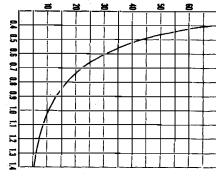
DIMENSIONS AND WEIGHT



Net Weight-1 lb.



PERMISSIBLE INTERRUPTIONS PER MINUTE



CURRENT IN AMPERES Application Chart for Al-1 Arc Inhibitor

ORDERING INFORMATION REQUIRED: 1. Class 9600

2. Type Al-1